

- 1 A method of cementing a well, comprising:
  - (a) preparing a pumpable slurry by mixing
    - i) cement;
    - ii) rubber particles having grain sizes in the range 250 – 425  $\mu\text{m}$  in an amount of between 30% and 100% by weight of cement;
    - iii) water; and
    - iv) an antifoam agent;so as to form a slurry having a density below 1.70  $\text{g/cm}^3$ ; and
  - (b) pumping the slurry into the well.
- 2 A method as claimed in claim 1, wherein the step of preparing the slurry comprises mixing rubber particles having grain sizes in the range 250  $\mu\text{m}$  to 400  $\mu\text{m}$ .
- 3 A method as claimed in claim 1, wherein the rubber particles are obtained by recycling tires from the automobile industry.
- 4 A method as claimed in claim 1, wherein the step of preparing the slurry further comprises mixing cast amorphous metal fibers in an amount of 1% to 25% by weight of cement.
- 5 A method as claimed in claim 4, wherein the metal fibers have lengths in the range 5 – 15mm.
- 6 A method as claimed in claim 1, wherein the step of preparing the slurry further comprises mixing at least one additive selected from the group consisting of suspension agents, dispersing agents, retarders, cement setting accelerators, and fluid loss control agents.
- 7 A method as claimed in claim 1, wherein the rubber particles have a density of about 1.2  $\text{g/cm}^3$ .

- 8 A method as claimed in claim 7, comprising mixing the rubber particles so as to form a slurry having a density of less than  $1.44 \text{ g/cm}^3$ .
- 9 A method as claimed in claim 1, further comprising dry blending the cement and rubber particles prior to mixing with water to form the slurry.
- 10 A method as claimed in claim 1, comprising preparing a slurry having a water content of 55% by volume or less.